DM320 2H320 Stepper motor driver controller PULSE 12800 microstep motor brushless DC motor shell for 28 35 42 stepper drivers

The parameters

параметр

Product features

1.Supply voltage : DC12-36V or AC12-24V
2.Drive current:0.3-2.0A
3.Subdivision precision:1-128 Subdivision options
4.opto-isolated signal input
5.Motor noise optimization function
6.Can drive any 2.0A below current 2-phase or 4-phase hybrid stepper motor
7.200KHz chop frequency

Electrical characteristics

Input current	12V-36V DC power supply,Typical value:DC36V
Output current	0.3A-2.0A,8 gears adjustable
Drive mode	Double constant current PWM drive output
insulation resistance	Normal pressure and temperature >500M Ω
Insulation strength	Normal pressure and temperature 500V/min
Weight	About 140g

Environmental requirements

Cooling method	Natural cooling
Use occasion	Avoid dust, oil mist and corrosive gases
Use temperature	0°C~+50°C
Ambient humidity	<80%RH,No condensation,no frost
Shake	Maximum not more than 5.7m/s²

Input signal interface function

Symbol mark	Function	Detailed description
PVL	Step pulse signal	The falling edge is valid, and the motor takes a step each time the pulse is changed from high to low.-5.5V≤Low level≤0.3V,3.6V≤ High level≤5.5V,pulse width>2.5uS
DIR	Directional control signal	Change the direction of the motor.-5.5V≤Low level≤0.3V, 3.6V≤High level≤5.5V,pulse width>2.5uS
VCC	Input signal photoelectric isolation positive terminal	Connect+5V power supply,+5V~+24 can drive,higher than +5V need connect current-limiting resistance.12V connect 1K,24V connect 2K
EN	Motor release signal	When effective (low level), the motor coil current is switched off, the drive stops working, and the motor is in free state.

Current output setting table

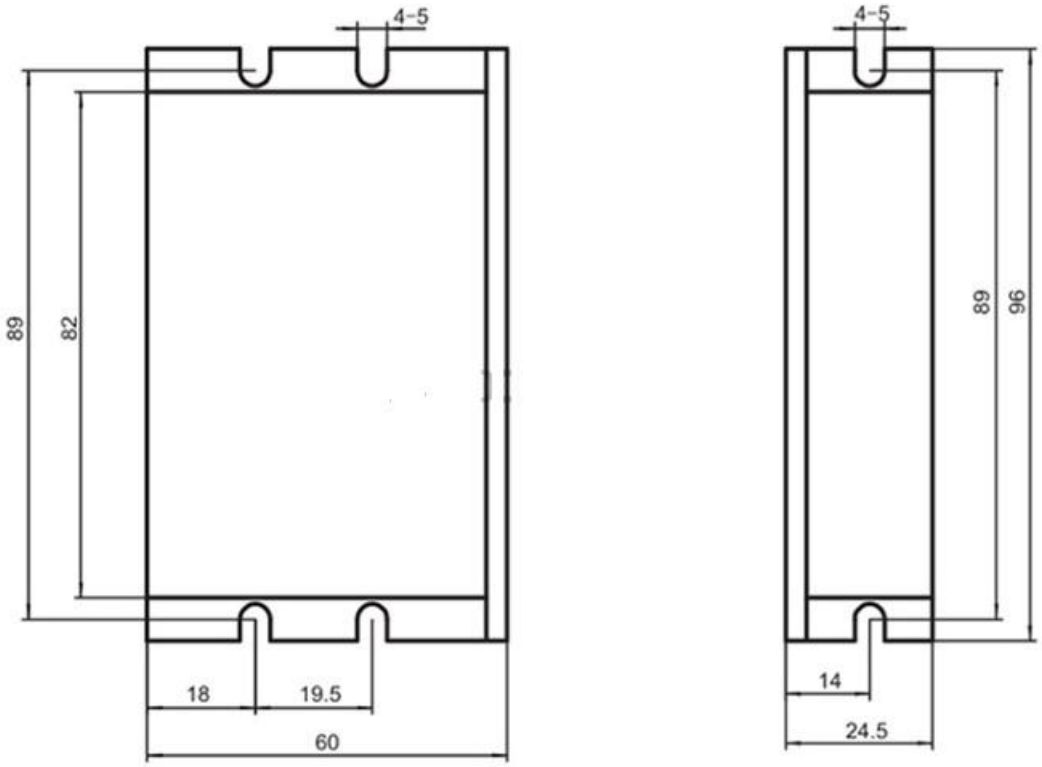
Output peak current	Sw1	Sw2	Sw3
0.3A	on	on	on
0.4A	off	on	on
0.5A	on	off	on
0.6A	off	off	on
1.0A	on	on	off
1.2A	off	on	off
1.5A	on	off	off
2.0A	off	off	off

Subdivision schedule

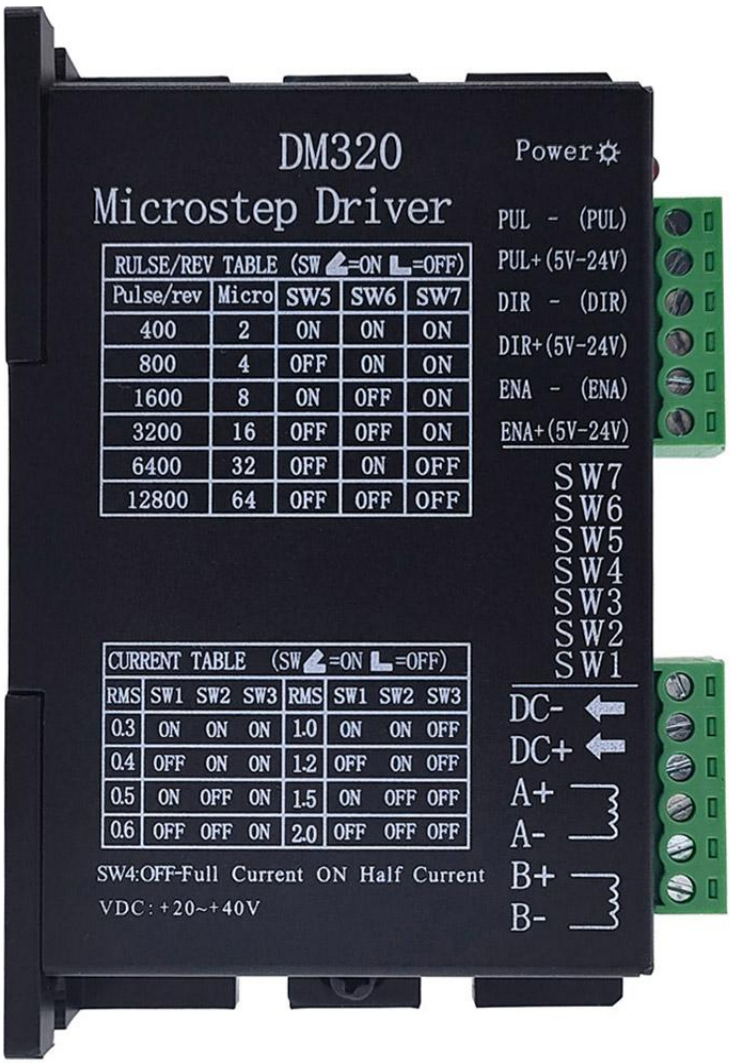
Step number/Circle	Micro	Sw5	Sw6	Sw7
200	1	on	on	on
400	2	off	on	on
800	4	on	off	on
1600	8	off	off	on
3200	16	on	on	off
6400	32	off	on	off
12800	64	on	off	off
25600	128	off	off	off

SW4:When set to ON, the standby current is set current, and when set to OFF, the standby current is half of the set current, and the heating is reduced.

Installation size



*Recommended for side mounting, better heat dissipation.



RULSE/REV TABLE (SW ◢=ON ◣=OFF)

Pulse/rev	Micro	SW5	SW6	SW7
400	2	ON	ON	ON
800	4	OFF	ON	ON
1600	8	ON	OFF	ON
3200	16	OFF	OFF	ON
6400	32	OFF	ON	OFF
12800	64	OFF	OFF	OFF

CURRENT TABLE (SW ◢=ON ◣=OFF)

RMS	SW1	SW2	SW3	RMS	SW1	SW2	SW3
0.3	ON	ON	ON	1.0	ON	ON	OFF
0.4	OFF	ON	ON	1.2	OFF	ON	OFF
0.5	ON	OFF	ON	1.5	ON	OFF	OFF
0.6	OFF	OFF	ON	2.0	OFF	OFF	OFF

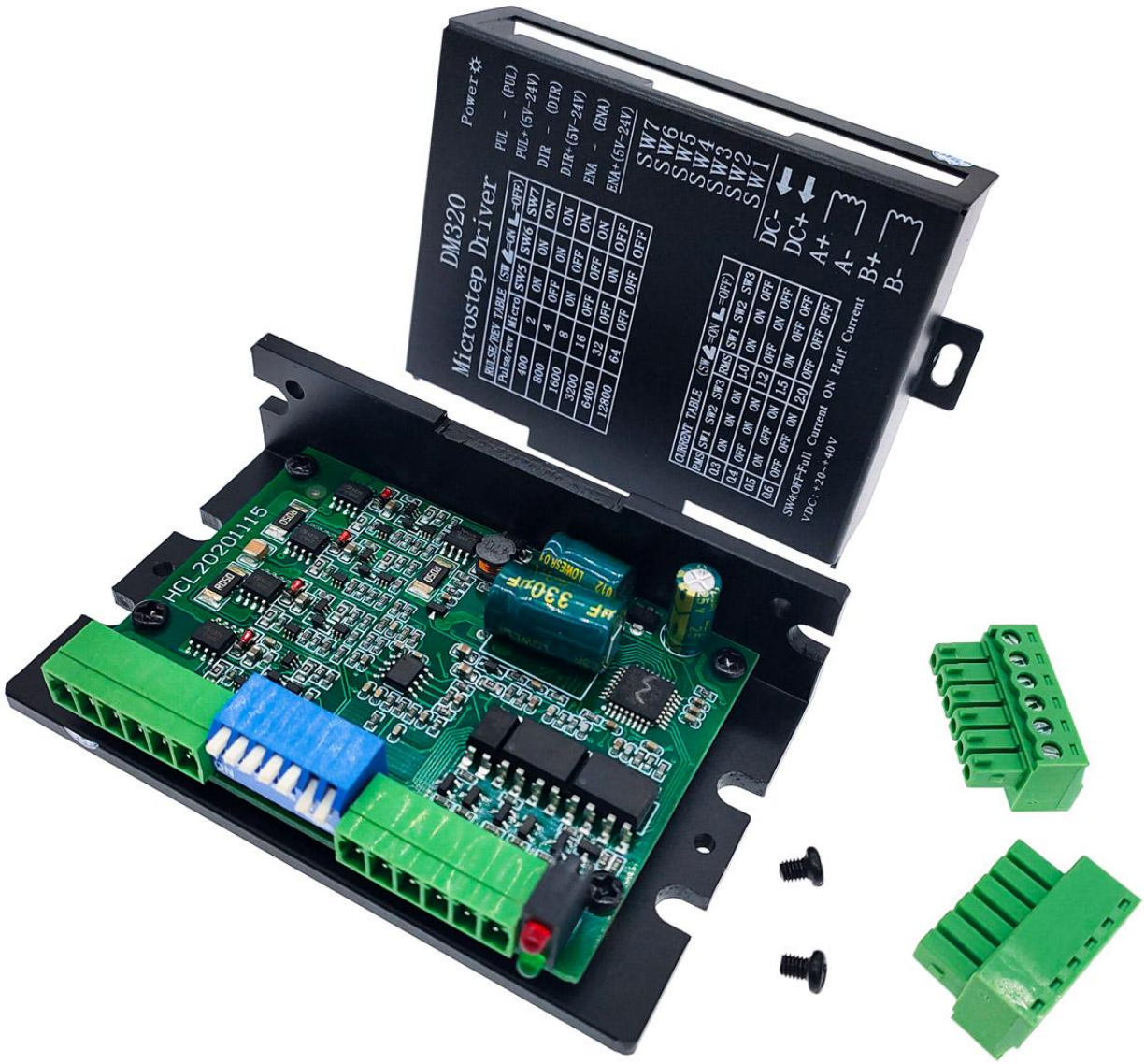
Pulse-(without resistance)
Pulse+(5-24V)
Direction-(without resistance)
Direction+(5-24V)
Enable-(without resistance)
Enabling+(5-24V)

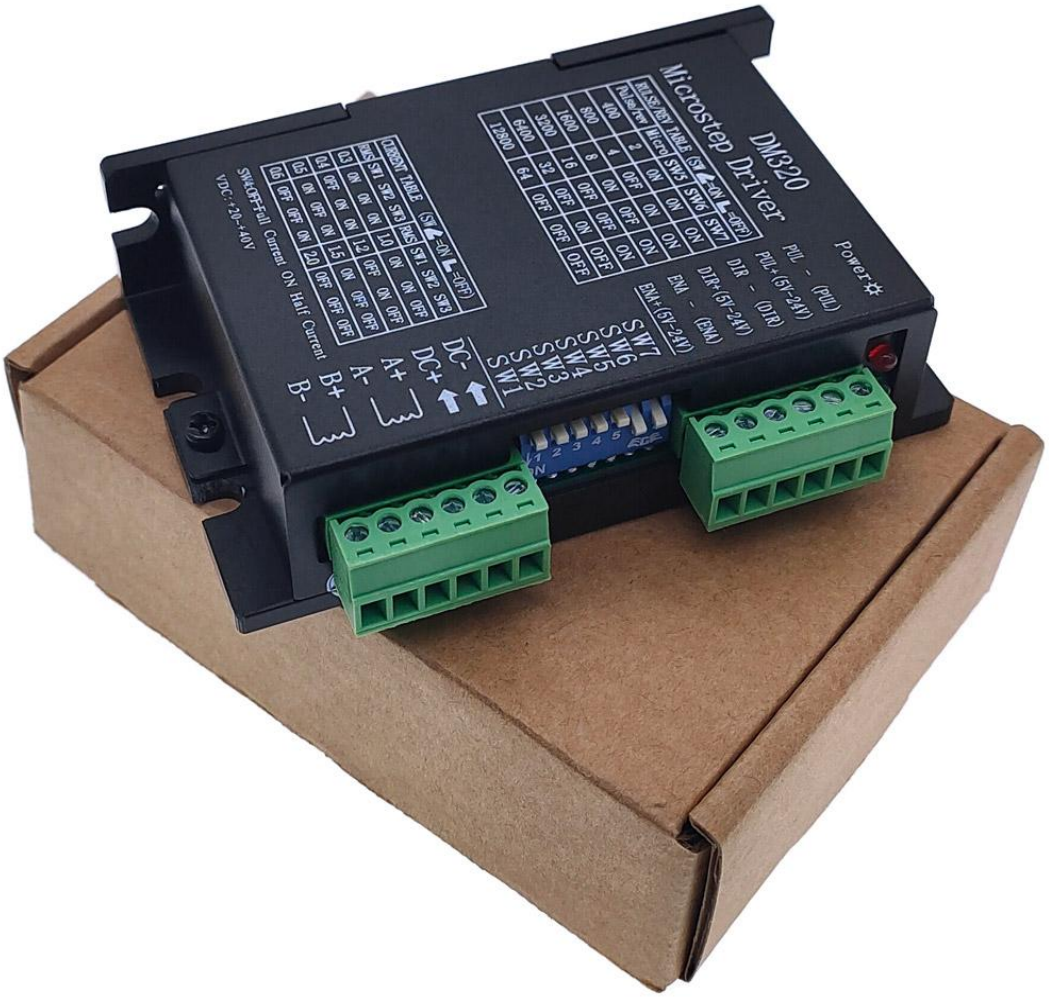
SW5,SW6,SW7
pulse subdivision Settings
SW1,SW2,SW3
current subdivision Settings

Input power supply (DC 20-40V)

MotorA+,A-wiring

MotorB+,B-wiring


DM320
Microstep Driver
Power
PUL - (PUL)
PUL+(5V-24V)
DIR - (DIR)
DIR+(5V-24V)
ENA - (ENA)
ENA+(5V-24V)
SW7
SW6
SW5
SW4
SW3
SW2
SW1
DC-
DC+
A+
A-
B+
B-
PULSE/REV TABLE
CURRENT TABLE
SW4:OFF-Full Current ON Half Current
VDC:+20~+40V
HCL20201115


DM320
Microstep Driver
Power
PUL - (PUL)
PUL+ (5V-24V)
DIR - (DIR)
DIR+ (5V-24V)
ENA - (ENA)
ENA+ (5V-24V)
SW7
SW6
SW5
SW4
SW3
SW2
SW1
DC-
DC+
A+
A-
B+
B-
SW5 SW6 SW7
ON ON ON
OFF ON ON
ON OFF ON
OFF OFF ON
ON ON OFF
OFF ON OFF
ON OFF OFF
OFF OFF OFF
SW4 SW3 SW2
ON ON ON
OFF ON ON
ON OFF ON
OFF OFF ON
ON ON OFF
OFF ON OFF
ON OFF OFF
OFF OFF OFF
SW7 SW6 SW5 SW4 SW3 SW2 SW1
Pulse/Rev
400
800
1600
3200
6400
12800
Micro
2
4
8
16
32
64
SW1 SW2 SW3 SW4
ON ON ON ON
OFF ON ON ON
ON OFF ON ON
OFF OFF ON ON
ON ON OFF ON
OFF ON OFF ON
ON OFF OFF ON
OFF OFF OFF ON
ON ON ON OFF
OFF ON ON OFF
ON OFF ON OFF
OFF OFF ON OFF
ON ON OFF OFF
OFF ON OFF OFF
ON OFF OFF OFF
OFF OFF OFF OFF
SW4 SW3 SW2 SW1
CURRENT TABLE
Peak
0.5
1.0
1.3
1.5
2.0
2.2
2.5
2.7
3.0
3.2
3.5
3.8
4.0
SW4-ON SW1-OFF
SW4-OFF Full Current ON Half Current
VDC: +20~+40V